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REMARKS

Claims 1-16 are pending in this application.

Claims 1-16 are rejected.

The office action dated February 4, 2005 indicates that claims 1, 2, 7, 8, 11, 12, 15 and 16 are rejected under 35 USC §103(a) as being unpatentable over Thomas U.S. Patent No. 6,498,349 in view of Danz et al. U.S. Patent No. 5,637,370. The office action also indicates that claims 5, 6 and 14 are rejected under 35 USC §103(a) as being unpatentable over Thomas in view of Danz and Official Notice, and that claims 3-4, 9-10 and 13 are rejected under 35 USC §103(a) as being unpatentable over Thomas and Danz in view of others.

During a telecon on April 5, 2005, applicant's attorney Hugh Gortler discussed the rejections with Examiner Paul Huber. The applicant's attorney indicated that neither Danz nor Thomas provide a reason, incentive or motivation for using carbon nanotubes in a data storage device. Moreover, Thomas does not disclose using carbon nanotubes in an emitter array, but simply discloses emitters that may be made of material based on carbon nanotubes. Examiner Huber indicated that claim 4, if rewritten in independent form, would be allowed over the combination of Thomas and Danz.

Claim 1 has been amended to include the subject matter of claim 4, now cancelled. Amended claim 1 recites a data storage device comprising an array of nanotubes as electron sources; and a phase-change storage layer proximate tips of the electron sources. Amended claim 1 and its dependent claims 2-3 and 5-8 should be allowed over the combination of Thomas and Danz. So too should claims 9-10.

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During the telecon, Examiner Huber revealed U.S. Patent No. 6,818,891. The applicant reviewed the '891 patent, which mentions that an atomic force microscope can have a probe tip made of carbon nanotubes. However, the '891 patent does not teach or suggest using carbon nanotubes for data storage, let alone carbon nanotubes in combination with a phase change storage layer. Therefore, claims 1-3 and 5-10 should be allowed over the '891 patent.

Claims 11-16 are cancelled.

The examiner is respectfully requested to withdraw the rejections of the claims and issue a notice of allowability. The examiner is encouraged to contact the undersigned to discuss any issues that remain.